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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/865,488	05/29/2001	Charles C. Peck	YOR920000699US1	3498
7590 07/01/2004 McGuire Woods, LLP 1750 Tysons Boulevard, Suite 1800 Tysons Corner McLean, VA 22102-3915			EXAMINER LU, TOM Y	
			ART UNIT 2621	PAPER NUMBER 6
DATE MAILED: 07/01/2004				

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/865,488

Applicant(s)

PECK, CHARLES C.

Examiner

Tom Y Lu

Art Unit

2621

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 04 June 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) 4-6, 10-13 and 17-20 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3, 7-9 and 14-16 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06 March 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Election/Restrictions*

1. Applicant's election without traverse of Species I, Claims 1-3, 7-9 and 14-16 in the reply filed on June 4, 2004 is acknowledged.
2. Claims 4-6, 10-13 and 17-20 are withdrawn from consideration.
3. Claims 1-20 are pending.

### *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1-3, 7-9 and 14-16 are rejected under 35 U.S.C. 102(e) as being anticipated by Luo (U.S. Patent No. 6,134,339).

- a. Referring to Claim 1, Luo discloses an illuminator for illuminating a user's eye with light radiation (illumination source 12, column 7, lines 1-2); a camera (video camera 14, column 6, line 59) for detecting an illuminator signal from said illuminator light radiation reflected from the user's eye and also detecting ambient light noise (ambient illumination, column 7, line 29), said camera outputting an output signal (frames S21 and frames 22); means for synchronizing said illuminator to turn on with a first interval of said camera and turn off with a second interval of said camera (triggering circuit, column 7, line 3); means for

Art Unit: 2621

digitizing said output signal and capturing a first image from said first interval having an illuminator signal portion (frame S22 with ambient illumination and additional illumination source 12, column 7, lines 30-32) and an ambient light noise portion and capturing a second image from said second interval having said ambient light noise portion (frame S21 with ambient illumination only, column 7, lines 28-29); and means for subtracting said first image from said second image to produce an output image substantially devoid of said ambient light noise portion (column 7, lines 35-39. the compensated image is  $(S21+S22)/2$ , the difference image is  $S22-(S21+S22)/2$  or  $S21-(S21+S22)/2$ ).

- b. Referring to Claim 2, Luo discloses wherein said first and second intervals comprises camera frames (S21 and S22 are video frames).
- c. Referring to Claim 3, Luo discloses wherein said means for subtracting subtracts according to the expression  $o_n = |f_n - f_{n-1}|$ , where  $n$  is an integer  $\geq 0$ ,  $o$  is said output image, and  $f$  are said camera frames (S21 and S22 correspond to  $f_n$  and  $f_{n-1}$  respectively, and the difference image could be  $S22-(S21+S22)/2 \rightarrow (S22-S21)/2$  or  $S21-(S21+S22)/2 \rightarrow (S21-S22)/2$ , whichever satisfies the expression of  $f_n - f_{n-1}$ ).
- d. With regard to Claim 7, see explanation in Claim 1.
- e. With regard to Claim 8, see explanation in Claim 2.
- f. With regard to Claim 9, see explanation in Claim 3.
- g. With regard to Claim 14, the only difference between Claim 1 and Claim 14 is Claim 14 calls for additional limitation of "a computer readable medium", which

Art Unit: 2621

Luo at column 6, line 67, teaches feature steps on computer 30, which inherently contains a computer readable medium.

- h. With regard to Claim 15, see explanation in Claim 2.
- i. With regard to Claim 16, see explanation in Claim 3.

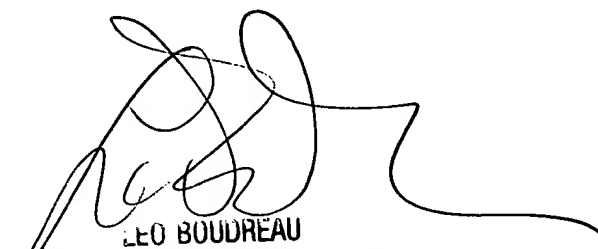
***Conclusion***

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tom Y Lu whose telephone number is (703) 306-4057. The examiner can normally be reached on 8:30AM-5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Leo H Boudreau can be reached on (703) 305-4706. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Tom Y. Lu

  
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